Reply to Office Action of March 30, 2009

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

Claims 1-18 (Canceled)

19. (Previously presented) A method of casting a component from a metal having a liquidus temperature, comprising:

providing a die comprising: a first part defining at least part of a die cavity with an external opening; and a second part defining a chamber for housing the first part, the chamber having an opening which is registrable with the external opening of the first part when housed in the second part;

heating the first part of the die to a temperature above the liquidus temperature of the metal whilst maintaining the second part of the die at a temperature below the liquidus temperature of the metal;

placing the first part of the die in the chamber of the second part with the chamber opening registered with the external opening of the first part;

introducing molten metal into the die cavity through the chamber opening; and solidifying molten metal in the die cavity.

- 20. (Previously presented) A method according to claim 19, further comprising removing the first part of the die from the second part after solidification, and cooling the first part independently of the second part before removing the solidified component from the first part.
- 21. (Previously presented) A method according to claim 19, further comprising:

placing a fibre preform into the die cavity prior to introducing molten metal therein; and

applying with a mechanical compaction piston pressure direct to molten metal introduced into the die cavity to encourage infiltration of the fibre preform prior to solidification.

- 22. (Previously presented) A method according to claim 21, further comprising advancing the mechanical compaction piston towards the die cavity when applying pressure to molten metal in the die cavity.
- 23 (Previously presented) A method according to claim 22, in which the mechanical compaction piston projects into the die cavity when applying pressure to molten metal in the die cavity.
- 24. (Previously presented) A method according to claim 21 further comprising applying pressures in the range 400 bar to 2500 bar to molten metal in the die cavity during solidification using the mechanical compaction piston.
- 25. (Currently amended) Apparatus A die for use in liquid pressure forming a metal matrix component, comprising a die having: a first part defining at least part of a die cavity with an external opening; and a second part defining a chamber for housing the first part, the chamber having an opening which is registrable with the external opening of the first part when housed in the second part, the chamber opening and external opening being configured for introducing molten metal into the die cavity when registered, wherein the first part and second part each comprise at least two sections so that each part may be split open, with sections of one part being configured to separate in a different direction to sections of the other part, whereby the first part is removable from the second part without disturbing the die cavity of the first part.

Claim 26 (Canceled).

27. (Previously presented) A die according to claim 25, in which the first part has a profile which tapers in one or more directions to facilitate release from the second part.

- 28. (Previously presented) Apparatus according to claim 25, further comprising:
- a mechanical compaction piston configured to apply pressure direct to molten metal in the die cavity during solidification.
- 29. (Previously presented) Apparatus according to claim 28, in which the mechanical compaction piston is configured to advance towards the die cavity when applying pressure to molten metal in the die cavity.
- 30. (Previously presented) Apparatus according to claim 29, in which the mechanical compaction piston is configured to project into the die cavity when applying pressure to molten metal in the die cavity.
- 31. (New) A method according to claim 19, in which the first and second parts of the die provided each comprise at least two sections so that each part may be split open, the method comprising placing the first part in the second part so that sections of one part are configured to separate in a different direction to sections of the other part.